

Patent Claims

- 5 1. Mixing and reducing machine with an upward-conveying mixing spiral that
rotates around a vertical rotational axle,
characterized in that,
after the first mixing spiral (11.1 – 13.2), a second mixing spiral (14.1 – 16.2) is arranged
in the axial direction, whereby between the mixing spirals (11.1 – 13.2; 14.1 – 16.2) a
10 transition zone (19) extends in the axial direction.
2. Mixing and reducing machine according to claim 1,
characterized in that,
the transition zone (19) is free of a mixing spiral.
- 15 3. Mixing and reducing machine according to claim 1,
characterized in that,
the two mixing spirals (11.1 – 13.2; 14.1 – 16.2) have different axial conveyed quantities.
- 20 4. Mixing and reducing machine according to claim 3,
characterized in that,
the two mixing spirals (11.1 – 13.2; 14.1 – 16.2) have different helix angles.
5. Mixing and reducing machine according to claim 3,
25 characterized in that,
the two mixing spirals (11.1 – 13.2; 14.1 – 16.2) have different spiral blade widths.
6. Mixing and reducing machine according to claim 3,
characterized in that,
30 the two mixing spirals (11.1 – 13.2; 14.1 – 16.2) have different rotational speeds.
7. Mixing and reducing machine according to claim 1,
characterized in that,
the two mixing spirals (11.1 – 13.2; 14.1 – 16.2) have different rotational directions.
- 35 8. Mixing and reducing machine, in particular according to the generic concept of claim
1,
characterized in that,
the spiral is interrupted in the circumferential direction and is comprised of mixing blades
40 (11.1, 12.1, 13.1, 11.2, 12.2, 13.2; 14.1, 15.1, 16.1, 14.2, 15.2, 16.2) connected one after
the other.
9. Mixing and reducing machine according to claim 8,
characterized in that,
45 at least individual mixing blades (11.1 – 16.2) have a lifting edge (18) that is bent
upwards on their trailing ends in the rotational direction.

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